July 2013

The Ballarat Naturalist

Fungi foray in Blackwood

Led by Les Hanrahan

A small group of FNCB meet at Garden St Erth, Blackwood and were joined by a few visitors from Bendigo and the local area. The fungi this season are not as spectacular as they have been because of the dry autumn. There was abundant variety of small species but a limited number of larger colourful ones. Members were equipped for the day with their new well-illustrated fungi foldouts. The fungi spotted behind Garden St. Earth and, after lunch, across the road past the second carpark are described in the accompanying table. The common names describe well what we saw for many of the fungi, e.g. Baby Belly Buttons.

Photo: *Marasmiellus affixus* Little stinker

Although it was the beginning of winter the sun shone most of the day. Not that we felt much of its warmth as our first path took us deep into a valley of the creek behind Garden St Erth. Even the birds were in scarce supply though during the day we saw Wedge-tailed Eagle, Brown Thornbill, Fairy Wren, Grey Fantail and a Sittella hopping up and down a tree.

Flowers, as to be expected in winter, were in short supply. There were many Common Heath plants

Photo: *Mycena epipterygia* Yellow legs

within one species, in size, thickness, colour and the presence or absence of reproductive structures. Accurate identification often requires microscopic examination, use of chemicals that stain different colours and electrophoresis to separate chemicals in the lichens.

Lichens have a variety of roles in ecology. Small invertebrates can live in lichens and become food for larger organisms. Loss of lichens has lead to decrease in bird biodiversity. Roof top lichens are home to 215 species of lichen moths. *Cladia* species, a fruticose lichen can be detected under snow by reindeer and is an important source of winter food.

Research is being done to find chemicals in lichens which can be used as insect repellents, sunscreens and new medicines.

The cryptogrammic crust is made of algae, lichens and moss and is important in binding soils in arid areas.

Lichens fix nitrogen from the atmosphere in a form that is used by plants.

For bio-monitoring and bio-indication, lichens are useful as they quickly show symptoms of changes in the environment Forest dieback occurs slowly over time whereas lichen populations change quickly. Lichens are sensitive to air pollution. In inner city areas only *crustose* lichens are found but, in outer areas as air quality improves, diversity increases. Also different lichens absorbing different pollutants is useful in detecting substance in the environment.

Archaeology can use lichens with specific habitat or environmental requirements to help determine conditions in past times.

Lichens, with their alga and fungus components, can reproduce sexually and asexually. Lichen propagules are small and easily distributed by wind. This results in a large number of cosmopolitan species of lichens found in countries around the world. In Australia there is a great deal **not** known about lichen distribution. Thirty-seven species new to Victoria were found during one rain-forest field-trip.

In response to questions, Mary said that lichen growth on trees is not a sign of poor tree-health. Healthy trees have lichen. Study of fires in the Central Highlands indicate that fire frequency has increased during the last 50 years leading to increase in wattles which are more fire prone and a decrease in lichen diversity. Further study is needed to learn more of the relationship between lichens and the environment.

We thank Mary for her interesting and wide-ranging talk on lichens.

John Gregurke

Fungi List Blackwood Exc June 2013

Genus	Common name	Description
Agaricus aff.silvaticus	Wood Agaric	
Agaricus xanthocephala	Yellow-stainer Agaric	
Amanita muscaria	Fly Agaric	Large
Amillaria luteobubalina	Honey fungus	Yellow
Ascocoryne sarcoides	Purple jelly discs	In wood in wet forest
Artomyces austropiperatus	Peppery coral fungus	Peppery taste
Bisporella citrina		Yellow discs on wood
Boletus erythropus	Bolete	Reddish, large pored
Cladonia chlorophaea?	Cup Lichen	Light green
Calocera sinensis	Pretty horn	Coral fungi
Clitocybe clytocyboides	Funnel cap	
Collybia eucalyptorum		
Coprinellus disseminatus	Fairy bonnets	
Cortinarius austrocinnibarinus		
Cortinarius austroveneta	Green skinhead	Green cap
Cortinarius rotundisporus	Elegant blue webcap	
Cortinarius sinapicolor	Slimy yellow Cortinar	
Crepidotus sp.	Brown shelf fungus	
Crepidotus sp.	White shelf fungus	
Galerina hypnorum	Moss Galerina	
Gymnophilus junonius	Giant gold cap	
Heterotextus peziziformis	Jelly bells	On logs
Hypholoma australe	Brick tuft	
Hypholoma brunneum	Brown tuft	
Hypholoma fasciculare	Sulphur tuft	
Laccaria sp.		
Lactarius deliciosus	Saffron milk-cap	Exotic
Lactarius eucalypti	A milk-cap	
Macrotyphula juncea	Fairy hair	Tall white stems
Marasmiellus affixus	Little stinker	Strong smell
Marasmius elegans	Velvet Marasmius	Two toned stem

Two different guided tours led by the garden's volunteers were available. About six of our group joined the public tour "Plants for your place" which was kindly delayed until we arrived. This tour was about choosing Australian plants in our gardens. The other tour at 2pm was about how Australian plants have evolved and adapted over millions of years and how human interaction with plants has changed over time.

Many of those not on the initial guided tour took advantage of the excellent café with views of the garden to enjoy refreshment before exploring by themselves. Others visited the excellent shop which had books, cards, gardening equipment, gifts and other items not often seen and tempting expenditure.

Photo: *Aerial view of part of the gardens*

Whilst overcast most of the time the weather was quite pleasant making exploring the gardens enjoyable. To personally explore, participants headed off individually or in small groups. A "people mover" which did a loop of the gardens accompanied by excellent commentary, was available for a cost of $4 per person. Claire and I and a few others utilized this and were provided with a good overview on which to base later walking, as well as some interesting facts about the gardens and plants. It was then downhill looking at typical plants from different areas of Australia.

There is even an experimental section where soil is heated and given different watering treatments to investigate the effects of climate change. The gardens are nicely landscaped to incorporate a wide variety of species and despite the time of year there was enough flowering to add interest. Time certainly flew till it was 2pm and time to join a guided tour at the lower end. The guided tour took an hour and finished back at the entrance gate to meet the 3pm scheduled departure.

Photo: *Part of the lake in the gardens*

Namibia and South Africa

Speakers: Jan & Rod Orr, Bendigo FNC

In August 2012 Rod & Jan joined a Friends group from the Sydney Botanical Gardens to visit Namibia and South Africa for 3-4 weeks. They concentrated on wild flowers and botanical gardens, but also had a chance to see some of the wildlife on safari. The trip was led by Peter Weston, a botanist from the Sydney Herbarium.

Flying from Sydney to Johannesburg via the Great Circle route surprised members as they flew over the Southern Ocean complete with icebergs! On arrival in Windhoek, Namibia's capital , they found a fascinating outdoor exhibition of meteorites which had fallen near Gibeon.

The Namibian desert resembled a moonscape, the fine material having been eroded by wind leaving bare rocks. Springbok and ostrich were seen but the prime interest was *Welwitschia mirabilis*, an ancient plant adapted to desert life by absorbing moisture from the air and fogs which are typical of this area. The plant has only two leaves which continue to grow throughout the its life. The male plant has cones. On to Walvis Bay where flamingos were a highlight and then the first encounter with the Quiver Trees! At Sossussvlei the giant sand dunes tempted members to climb them, giving an extensive view over this sandy region. Ironically we saw shots of a "dead valley" where floods had killed the trees.

Visiting Namaqualand was clearly a highlight of this tour, where great spreads of wildflowers rivalled Western Australia's spring display. In Australia what we know as Cape Weed is known as Cape Daisy in its native land. Gazanias looked delightful here where they belong, and with many insects, including colourful caterpillars predating them, they are not "weeds". Rod showed us a wonderful selection of blooms from this region, including many daisies.

En route to Cape Town, Cederberg Mountains were visited, and Stadsaal Caves. On Table Mountain, Hyrax perched on the rocks and watched the visitors, while a variety of Sunbirds proliferated where they occupy the same niche as our honeyeaters, pollinating the flowers. Kirstenbosh Gardens demonstrated the Gondwana link with many *Proteas* and *Euphorbias*. Members had a private tour of Stellenberg garden, a private property in the European style.

Driving through the "fynbos" ecological region members saw numerous species of *Erica* and some unusual *Proteas*. At the Karoo Botanical Gardens there was snow on the mountains. A collection of aloes showed that

The Friends of the Canadian Corridor envisage that:

•Relinquished plantation blocks will blend with the existing Canadian Forest and will be managed as a comprehensive multi-use Forest Park.

•The forest will be kept in public ownership and managed by a public body, preferably the Department of Sustainability and Environment, the City of Ballarat, or community service body such as the Ballarat Environment Network or other.

•The ex-plantation blocks will be developed so as to increase koala habitat, as set out in the City of Ballarat's Koala Plan of Management. Revegetation links will be established between remnant Koala vegetation islands creating a continuous corridor or Bio Link.

•The multi-use Forest Park will be integral to a biolink corridor that extends from the Enfield Forest to the Wombat Forest near Creswick.

•The forest will be used for environmental studies, planning and practice for institutions such as: the University of Ballarat, local schools, Landcare and conservation groups.

•The reforestation will be planned and undertaken using the expertise of the University of Ballarat utilising natural growth, offset plantings, carbon sequestration and reduction schemes and volunteer plantings whilst keeping as a core priority, appropriate fire control measures and access.

•The resulting park will be open to organised forest sports such as orienteers, mountain bikers, runners and bush walkers. It will also be a treasured recreational destination for bird observers, youth organisations (eg. scouts), **field naturalists**, hikers, picnickers, and others seeking natural and cultural history recreation.

•The Friends see this as a once in a lifetime opportunity to positively put in place, a koala-friendly Bio-Link that also incorporates a multi-use, recreational, cultural and natural heritage Forest Park which retains the forested skyline of the City of Ballarat, and strengthens our city's reputation for liveability and sustainability.

Friends of the Canadian Corridor May 19th 2013

The *Art of Science,* Ballarat Art Gallery 1st June - 21st July

This exquisite touring exhibition showcases the uncommon beauty produced from 300 years of scientific observation and illustration. Coming from Museum Victoria it presents the development of scientific art from the museum's collection of rare art works. and stunning images.

Sunday July 7 Excursion to Canadian Area

Led by J Gregurke

Meeting as usual 9.30, or at Pryor Park at 9.45am to explore the area and northern part of Canadian Forest (CF)
Lunch 12 noon at Lake Esmond, Lal Lal St entrance
After lunch depart 1 pm to the cleared plantation areas & Canadian Ck gorge on southern edge of CF.
Friends of CC have been invited,

Excerpts from Club Meeting Minutes June 7, 2013

Reports

Treasurer's Report: Opening balance $6728.68 Income $692.7
Expenses $1209.33 Closing balance: $6212.07.

John Gregurke reported on a Canadian Corridor field walk – 7 members participated. Some new plants noted and large quantities of dumped rubbish. A public forum is to be held next Wednesday June 12 at Mt Clear.

Brolga count last month netted 947. Two brolgas reported killed at Leonards Hill wind turbines.

General Business

Wombat fungi brochures have arrived. $4 each. Members to collect and pay.

Notice of John Arnott, RBG Cranbourne to speak at Buninyong Gardens 6th July fundraiser (same speaker & topic as for our November meeting)

Art Gallery of Ballarat exhibition *The Art of Science* begins June 1st.

Yarrowee Tree Planting Sun 18th August 10am-2pm.

Reminder about August's Special Resolution to adopt Model Rules.

Show & Tell/Field Reports

Mid-May: Jane Marriott saw 300 Yellow-tailed Black Cockatoos over Creswick cemetery.

Jan Orr (Bendigo FNC) reports fluctuating numbers 2-10 of Freckled Duck at Kennington Reservoir.

May 11th John Gregurke in Clunes Forest saw Tawny-crowned and White-fronted Honeyeaters. On 14th he saw a Southern Boobook at Nth Gardens Wetland; at Mt Cole on the 26th a pair of Powerful Owls with prey Ringtail Possum.

Mid-May - Peter Billing reported on the large number of Long-billed Corellas feeding around Lake Wendouree.

CALENDAR 2013

June

Fri 7	*Namibia & Sth Africa* - Rod & Jan Orr, FNC Bendigo
Sun 5	Excursion - *Fungi, Blackwood* - Les Hanrahan, Club member
Tues 25	Committee Meeting at John Gregurke's

July

Fri 5	*Climate change-revisiting the science* -Dr L Wilson, BREAZE
Sun 7	Excursion -*Canadian Corridor* John Gregurke, Club member

June 1 - July21 Art Exhibition; Ar*t of Science* (See p. 6)

Committee

President .....Peter Dalman
Vice –President.....Fran Hanrahan
Secretary .....Carol Hall
Treasurer.....Les Hanrahan

Elspeth Swan
Claire Dalman .....
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Meetings are held at the Primary Industries Training Centre, cnr Gillies and Gregory Sts, on the first Friday of the month at 7.30pm..
Excursions: Leave from the carpark at the Primary Industries Training Centre, cnr Gillies and Gregory Sts. at 9.30 am, unless otherwise advised.

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